

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/482,769	KRAIEM, BESMA	
	Examiner	Art Unit	
	Guillermo Munoz	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed March 25, 2005.
2.  The allowed claim(s) is/are 11-15, renumbered as 1-5, respectively.
3.  The drawings filed on 12 July 2004 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_

*Jean B. Corrielus*  
**JEAN B. CORRIELUS**  
**PRIMARY EXAMINER**  
*5-14-04*

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Darren M. Simon on May 2, 2005.

The application has been amended as follows:

**IN THE CLAIMS:**

In claim 11, on line 13 change "are integers" to —are integers greater than zero—; on line 16 change "to QPSK" to —to a QPSK—; on line 37 change "said signals" to —said OFDM signals—.

In claim 14, on line 13 change "said carrier" to —a carrier—; on line 17 change "said A/D-converted" to —the analogue-to-digital converted—; on line 17 change "a baseband signal" to —a baseband OFDM signal—; on line 30 change "said QPSK complex" to —the QPSK—; on line 32 change "said QAM complex" to —the QAM—; and on line 39 change "amplitude of said signals" to —amplitude of said OFDM signal—.

In claim 15, on line 2 delete "complex"; on line 4 change "mean" to —means—; in line 5 delete "complex"; in line 7 delete "complex".

*Allowable Subject Matter*

Claims 11-15 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 11-15 are indicated as allowable because the present invention comprises an OFDM communications system having a demultiplexer for separating control symbols from data symbols and generating QAM data symbols and QPSK control symbols combined onto a single subcarriers within the OFDM frame on the transmitter side; and the receiver includes a demultiplexer for separating subsequent control symbols from data symbols and demodulating the QAM data symbols and QPSK control symbols. The closest prior art Seki et al. (cited in office action mailed April 13, 2004) teach a similar circuit including OFDM communications system having QAM symbols and QPSK symbols combined onto a single subcarrier within the OFDM frame. However, Seki et al. fails to teach the demultiplexer for separating subsequent control symbols from data symbols and generating QAM data symbols and QPSK control symbols combined onto a single subcarriers within the OFDM frame on the transmitter side; and the receiver includes a demultiplexer for separating subsequent control symbols from data symbols and demodulating the QAM data symbols and QPSK control symbols. The distinct feature of the instant application has been included in independent claims 11 and 14 rendering them allowable. Claims 12-13 and 15 are dependent on independent claims 11 and 14, respectively, and are thereby considered allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Munoz whose telephone number is 571-272-3045. The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GM  
May 2, 2005



JEAN B. CORRIELUS  
PRIMARY EXAMINER

5-14-05